



APPRAISAL BULLETIN

PUBLISHED IN THE INTERESTS OF REAL ESTATE ANALYST SUBSCRIBERS BY

ROY WENZLICK & CO.

MARCH 16
1951

Volume XX

Real Estate Economists, Appraisers and Counselors

Number 13

Copyright 1951 by ROY WENZLICK & CO. Saint Louis

LAND OF LIMITED USEFUL LIFE

THE development of any profession is always a slow and painful process, beset by trials and disappointment and apparent failure. But through the entire development period, and later when the group has attained professional stature, one thing must be present. There must be a freely moving exchange of information and ideas to bind the group together and to give it a certain sense of direction. That necessary ingredient has been present in the appraisal field for many years. In recent times it has been gaining in effectiveness.

From time to time we take the opportunity to join in this exchange of ideas not only in the hope that we may contribute something to appraisal theory, but also with the hope that we may increase or crystallize our knowledge on the subject. With these thoughts in mind we would like to ask and discuss briefly the following question: Is there always a reversionary land value, or is it always correct to capitalize land in perpetuity?

This question has come to mind several times in the past and was particularly persistent last summer when we were appraising large numbers of slum property. The tract located in a very old section of town had previously been zoned for industrial purposes but was built up mostly with 2- to 8-family tenements. There was also a liberal sprinkling of light industrial buildings, junk yards, taverns and neighborhood stores. In addition, about 5% of the tract was vacant land. Virtually all of the dwelling units were at least 60 years old, were in advanced stages of disrepair, and tenanted by families who allowed incredible amounts of filth and dirt to collect both in and outside of the buildings. The district simply swarmed with children, dogs and rats, and ranked first in calls to the City Hospital and in juvenile delinquency. Gang fights and tavern brawls caused the district to rank unusually high in the number of police calls.

The district has been rezoned for multifamily use. Therefore, no more industrial or commercial buildings can be erected. It is obvious, however, that very few people would build residential units in this district. The market for the vacant land is thereby so seriously restricted as to be virtually non-existent. Moreover, the land beneath the present antiquated residential structures will be afflicted with the same restricted market within a comparatively short time. This is because the useful life of the buildings has about run its course and they will soon fall or be torn down, leaving nothing but the land.

We believe that a realistic appraisal should be made by returning the land value

to the owner within the remaining useful life of the building because after the building is gone the land is virtually useless under its present zoning restrictions. Furthermore, it is pure speculation to assume that the zoning will be changed to allow for profitable use in the near future. In this district unused land could hardly be held without a loss due to taxes and the necessity of carrying liability insurance.

About the only chance the land in this district has to retain a future value is for the whole area to decline at about the same rate and for rezoning to occur. Another possibility is for the Public Housing Authority or Urban Redevelopment Corporation to take over the area as part of a slum clearance project.

To develop this line a little further, how would one appraise such a property? Assuming that the land is vacant, the only methods to use are the comparative approach and the income approach. Since there are no comparable sales and no income the very attempt of going through the appraisal process leads to the conclusion that there is no value. In cases where the property is improved with a ramshackle tenement, the value is based upon the amount of income it will earn during the remaining useful life of the building. After that, since no reasonable person would erect a new building in such squalid surroundings, there is no income and, therefore, no value. Therefore, what possible reason can there be for capitalizing this particular piece of land in perpetuity?

If we accept the theory that this type of land has no reversionary value, aren't we then faced with the problem of deciding precisely at what point and under what conditions land does have reversionary value? In other words, where do we draw the line?

In the example we have been discussing where the buildings are old, dilapidated and obviously on the verge of collapse it is easy to see that the ground has little or no value (as a site for a multifamily building). When we go to the other extreme, for example, a new building in a new neighborhood, we are as certain as we ever can be that the land will have reversionary value, but in this case it makes relatively little difference whether we depreciate the land along with the buildings or capitalize it in perpetuity. The following figures show two accepted methods of capitalizing the income compared with the unorthodox counterparts we have been discussing.

EXAMPLE I - Comparison Between Values Arrived at by Using Straight Line Depreciation on the Building Only and Considering the Land in Perpetuity and Straight Line Depreciation of Land and Building on New Building in New Neighborhood

Generally Accepted Method

Annual net income (before depreciation) of new multifamily building	\$14,400	
Estimated remaining life - 50 years		
Estimated land value - \$7,500		
Capitalization rate - 7% on land and building		
Income imputable to land = \$7,500 ÷ 7%	525	
Income imputable to building	\$13,875	
Value of building - \$13,875 ÷ (7% + 2% depreciation)		\$154,167
Value of land		7,500
Total Value		\$161,667

Land and Building Depreciated at Same Rate (Straight Line Depreciation)
Same building and capitalization rate as above

Net income (before depreciation) \$14,400
Value = \$14,400 ÷ (7% + 2% depreciation) \$160,000

In this example the difference between the generally accepted method and depreciating the land along with the building is only \$1,667, or approximately 1%.

EXAMPLE II - Comparison Between Values Arrived at by Using the Annuity Premise With Land Considered in Perpetuity and as an Annuity

Generally Accepted Method

Same building and capitalization rate as used in Example I

Income imputable to building \$13,875
Building value, \$13,875 x 13.801 (Inwood Factor for 7% for 50 yrs.) . . \$191,490
Estimated land value 7,500
Total Value \$198,990

Land and Building Depreciated at Same Rate (Annuity Premise)

Same building and capitalization rate as above

Annual net income \$14,400
Value - \$14,400 x 13.801 (Inwood Factor) \$198,734

In this example the difference is only \$256, or about 1/8 of 1%.

A few minutes ago we said that it made relatively little difference whether or not the land is considered in perpetuity or not when appraising a new building in a new neighborhood. Actually this is generally the case, but in some instances where the ground carries a very high value it makes considerable difference whether the land is made residual. This is particularly true in downtown districts, high-priced shopping centers or when a property is underimproved.

In other words, the higher the land value in relation to building value and the older the property and neighborhood the greater will be the difference between the appraised value if the land is considered in perpetuity and the appraised value if the land and building are depreciated at the same rate. Let's take another example. In this case the land has a high value in relation to the building and the property and neighborhood are very old.

EXAMPLE III - Comparison Between Values Arrived at by Using Straight Line Depreciation on the Building Only Considering the Land in Perpetuity and Straight Line Depreciation of Land and Building on Old Building in Old Neighborhood

Generally Accepted Method

Annual net income (before depreciation) 4-family
tenement \$1,536
Age of building - 80 years

Estimated remaining life - 10 years		
Estimated land value - \$1,800		
Capitalization rate - 7% on land and building		
Income imputable to land (\$1,800 x 7%)	\$ 126	
Income imputable to building	\$1,410	
Value of building = \$1,410 ÷ (7% + 10% depreciation)	\$ 8,294	
Value of land	<u>1,800</u>	
Total Value		\$10,094

Land and Building Depreciated at Same Rate (Straight Line Depreciation)
Same building and capitalization rate as above

Annual net income (before depreciation)	\$1,536	
Value = \$1,536 ÷ (7% + 10% depreciation)		\$ 9,035

In this instance the difference between \$10,094 and \$9,035 is \$1,059. Therefore, by depreciating the land and building at the same rate we get a value 10½% lower than by the generally accepted method. If we make the same type comparison using the annuity premise, we find that we get a total of \$11,710 by giving the land a reversionary value, compared with \$10,770 by depreciating the land along with the building. In this instance the difference between the generally accepted method and the unorthodox method is \$940, or 8%.

As we have pointed out before, we do not necessarily subscribe to all of the implications of this theory. We do feel fairly positive, however, that the land in slum districts where the use is restricted to residential property should be depreciated at the same rate as the improvements.